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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,734	07/17/2003	Shmuel Silverman	CM06214H	1794
22917	7590	03/08/2006	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			KHOMASSI, NIMA	
			ART UNIT	PAPER NUMBER
			2132	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,734	SILVERMAN ET AL.	
	Examiner	Art Unit	
	Nima Khomassi	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The application having Application No. 10,621,734 has a total of 16 claims pending in the application; there are 3 independent claims and 13 dependent claims, all of which are ready for examination by the Examiner.

The Examiner requests, in response to this Office action, a showing support for the following: claim language found in the present independent claims 1 and 8. Claim language added to any present claims on amendment and any new claims. That is, indicate support for claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist in prosecuting the application.

When responding to the Office action, Applicant is advised to clearly point out the patentable novelty the claims present in view of the state of the art disclosed by the reference(s) cited or the objection made. A showing of how the amendments avoid such references or objections must also be present. See 37 C.F.R. 1.111(c).

Drawings

The drawings are objected to because "vector" is misspelled in Fig. 4, step 402. The Examiner suggests that the other Figures be reviewed as well to ensure that there are no further misspellings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

“amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitations containing the term “attempting” was neither mentioned nor described in the specification.

Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation containing the term "a priori" was neither mentioned nor described in the specification. Further, the term "a priori" renders the claim ambiguous and unclear.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 1-14, drawn to providing encryption in a communication system using encryption vectors and also ensuring the receipt of packets by use of acknowledgements, classified in class 380, subclass 277.
- II. Claim 15-16, drawn to carrier sense circuitry, demodulators, and decoders coupled to a processor, classified in class 375, subclass 147.

Inventions as claimed are independent and distinct. Inventions I and II are directed towards claims that are subcombinations usable together but not claimed together. In the instant case, invention I is drawn to providing encryption in a communication system using encryption vectors and also ensuring the receipt of packets by use of acknowledgements. Invention II is drawn toward carrier sense circuitry, demodulators, and decoders coupled to a processor.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction

for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Indira Saladi on 2/14/2006, a provisional election was made with traverse to prosecute the invention of "Method for providing point-to-point encryption in a communication system", claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Marshall U.S. Patent No. 4,933,969

Jones U.S. Patent No. 5,412,730

Altschuler U.S. Patent No. 5,588,062

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava et al. (herein referred to as Reference 1), U.S. Patent No. 6,684,331; filed December 22, 1999 and patented on January 27, 2004 in view of Lynn et. al (herein referred to as Reference 2), U.S. Patent No. 5,345,508; filed on August 23, 1993 and patented on September 6, 1994.

As per claims 1 and 8-9, 11-14, a method comprising the steps of: transmitting a first packet encrypted using a first encryption vector to a receiving device, wherein the first packet comprises a second encryption vector; and transmitting a second packet encrypted using the second encryption vector to the receiving device if an acknowledgement message is received within a predetermined period of time after transmitting the first packet; otherwise, re-transmitting the first packet encrypted using the first encryption vector to the receiving device (Reference 1 col. 4, lines 11-13; "The second key is encrypted with the first key and the third key is encrypted with the second key and so on"; see also col. 2, 2nd paragraph). Reference 1 does not expressly state that packets are resent if not received within a predetermined time. The Examiner take Official Notice retransmittal of non-received, unacknowledged, flawed/error messages and/or packets are old, common and well established in the computing art in any connection oriented environment.

As per claim 2, 4 and 10, wherein the second packet comprises a third encryption vector (Reference 1, col. 4, lines 11-13; "The second key is encrypted with the first key and the third key is encrypted with the second key and so on").

As per claim 3, Reference 1 discloses the method of claim 1. However, they do not explicitly disclose a key exchange to generate a reciprocal set of keys. Reference 2 discloses performing a key exchange with the receiving device to generate a reciprocal set of keys; and transmitting the first encryption vector to the receiving device (Reference 2, col. 2, lines 58-64; see also Reference 1 col. 4, lines 11-13). Reference 1 & 2 are analogous art because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the key exchange of Reference 2 with the vector encryption method of Reference 1. Therefore, it would have been obvious to combine Reference 2 with Reference 1.

As per claim 5-7, inputting the first encryption vector and a key from the reciprocal set of keys into an encryption engine to generate a first scrambling table for the first packet; generating an encryption value from the first scrambling table for each physical symbol in the first packet; and combining each physical symbol in the first packet with an encryption value via an operation in order to encrypt the first packet (Reference 2, Fig. 2).


Conclusion

Any inquiry concerning this communication or earlier communications should be directed to Nima Khomassi whose telephone number is (571) 272-3775. The examiner can normally be reached Monday-Friday from 8:30 AM to 5:00 PM.

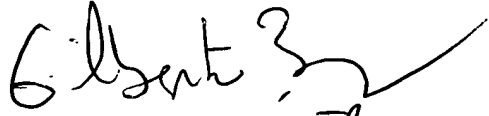
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron Jr., can be reached at (571) 272-3799.

The fax number for Formal or Official faxes to Technology Center 2100 is 571-273-8300. On July 15, 2005, the Central Facsimile (FAX) Number changed from 703-872-9306 to 571-273-8300. As of September 15, 2005, the former is no longer in service; the latter is the only facsimile number recognized for centralized delivery.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nima Khomassi
February 14, 2006
Art Unit #2132



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